THE UNIVERSITY OF ARIZONA SPACE INSTITUTE SYMPOSIUM

٢

Friday, April 11, 2025 GCRB Room 130



8:00 - 8:30 A.M.	ATTENDEE REGISTRATION, PRESENTER POSTER SESSION & LIGHT BREAKFAST
8:30 – 9:10 a.m.	WELCOME TO THE SYMPOSIUM ADVANCING SPACE SCIENCE & EXPLORATION AT UA
	 Erika Hamden, Director, University of Arizona Space Institute Tom McMahon, Program Manager, University of Arizona Space Institute Walt Harris, Chief Scientist, University of Arizona Space Institute
	KEYNOTE
	• Kim Patten, Associate Vice President of Research Development & Acting Chief of Staff, Research, Innovation & Impact
9:10 – 10:30 a.m.	UA FACILITIES & LABORATORIES
10:30 - 10:45 A.M.	 Andrew Gardner, Multi-Mission Operations Center Jarron Leisenring, Capabilities of the Imaging Technology Lab Andre Wong, The Arizona Infrared Detector Laboratory Andrea Nelson, Research from the Laboratory of Space Systems and Optomechanics (LASSO) Justin Hyatt, Getting Data Down to Earth - New Ground Station Technology Sam Ragland, Satellite Guide Star (Sagi-Star) Adaptive Optics for the LBT
10:45 - 12:00 P.M.	MISSION, INSTRUMENT, AND TECHNOLOGY CONCEPTS & DEVELOPMENT
	 Angela Marusiak, LEMS-A3: Sending Seismometers Back to the Moon Haeun Chung, GlowSat: A 6U CubeSat Mission Concept for Far-Ultraviolet Airglow Survey and Technology Advancement Andy Ryan, EMILIA-3D: Advanced Thermal Imaging of the Lunar Surface Brandon Chalifoux, Flex Modules: A Path to High Resolution X-Ray Telescope Optics via Final Step Figuring Hao Xin, Multifunctional Luneburg Lens Enabled Radar for Enhanced Space Domain Awareness Anton Samoylov, Multifunctional Nanofiber Reinforcement of Perovskite Solar

Cells for Resilience in Space

(



THE UNIVERSITY OF ARIZONA SPACE INSTITUTE SYMPOSIUM

Friday, April 11, 2025 GCRB Room 130

AGENDA

12:00 - 1:00 P.M. NETWORKING LUNCHEON | GCRB LOBBY

1:00 – 2:15 P.M. DOMAIN AWARENESS & LUNAR EXPLORATION

E)

- Fabio Curti, Space-Based Detection of Resident Space Objects Using Star Sensors
- Christopher Corbally & Margaret Boone Rappaport, Options for Governance and Regulation of Satellite and Other Space Debris
- Rachel Pabst & Ellie Wolcott, Scalable In-Situ Water Extraction for Lunar Bases: A Proof-of-Concept System
- Victor Tenorio, Initiating Lunar Mining Operations for Sustainable Human Presence
- **Ricardo Nunes**, *Lunar Mining: Overcoming Challenges and Evaluating Excavation Strategies*
- Jekan Thanga, Advancing SMART Devices Ecosystems to Accelerate Lunar & Martian Surface Exploration and Development

2:15 – 2:30 P.M. BREAK

2:30 – 3:45 P.M. ONGOING MISSION & INSTRUMENT UPDATES

- Hilliard Page, Evaluation of methods used to downlink and process X-Band data from CatSat
- Walter Rahmer, CatSat: Post-Launch Operations of a Student-Built CubeSat
- Hannah Tanquery, Innovating Under Constraints: Aspera's Path to Launch
- Aafaque Khan, Big Science with Small Satellites: Uncovering the Cosmic Collision Between Milky Way and Large Magellanic Cloud with Aspera Extended Mission and Beyond
- Jason Corliss, The Spatial Heterodyne Interferometric Molecular Cloud Observer (SHIMCO): A Suborbital Mission Scheduled for Launch in 2027

3:45 – 4:00 P.M. CLOSURE & FINAL CONNECTIONS

• Walt Harris, University of Arizona Space Institute

